3

MEMORANDUM

Engineering Division

To: Mike McNeely, City Engineer

From: Darryl Wong, Utility Engineer

Subject: **Draft Odor Action Plan**

Date: January 13, 2004

Attached is a draft odor control plan being developed by staff in coordination with regulatory and potential odor sources. The plan consolidates components previously presented to Council.

The action plan is the product input from both the Bay Area Air Quality Management District and Local Enforcement Agency and of several meetings and site visits with each potential odor source. Staff acknowledges the cooperation provided by each stakeholder in assisting in the plan development. Staff is continuing to work with stakeholders to refine the plan.

attachment: Draft Odor Action Plan

Draft Odor Action Plan
City of Milpitas

01-13-04

TABLE OF CONTENTS

1. INTRODUCTION At an October 7, 2003 public hearing, the Milpitas City Council received testimony regarding chronic odor episodes within the City. Representatives from the Bay Area Air Quality Management District (BAAQMD), and from agencies of potential sources (1) were invited to the hearing. Testimony received included dissatisfaction over recurring and persistent odor episodes that affect the quality of community life, confusion over how and to whom to make odor complaints, and concern over apparent non-responsiveness of sources to correct odors. All testimony included a request for increased, more effective odor control efforts.

As a result of the session, the City Council directed staff to work with regulatory and potential odor source agencies to develop and implement an odor control plan. This document provides some odor control findings and the resulting draft odor action plan.

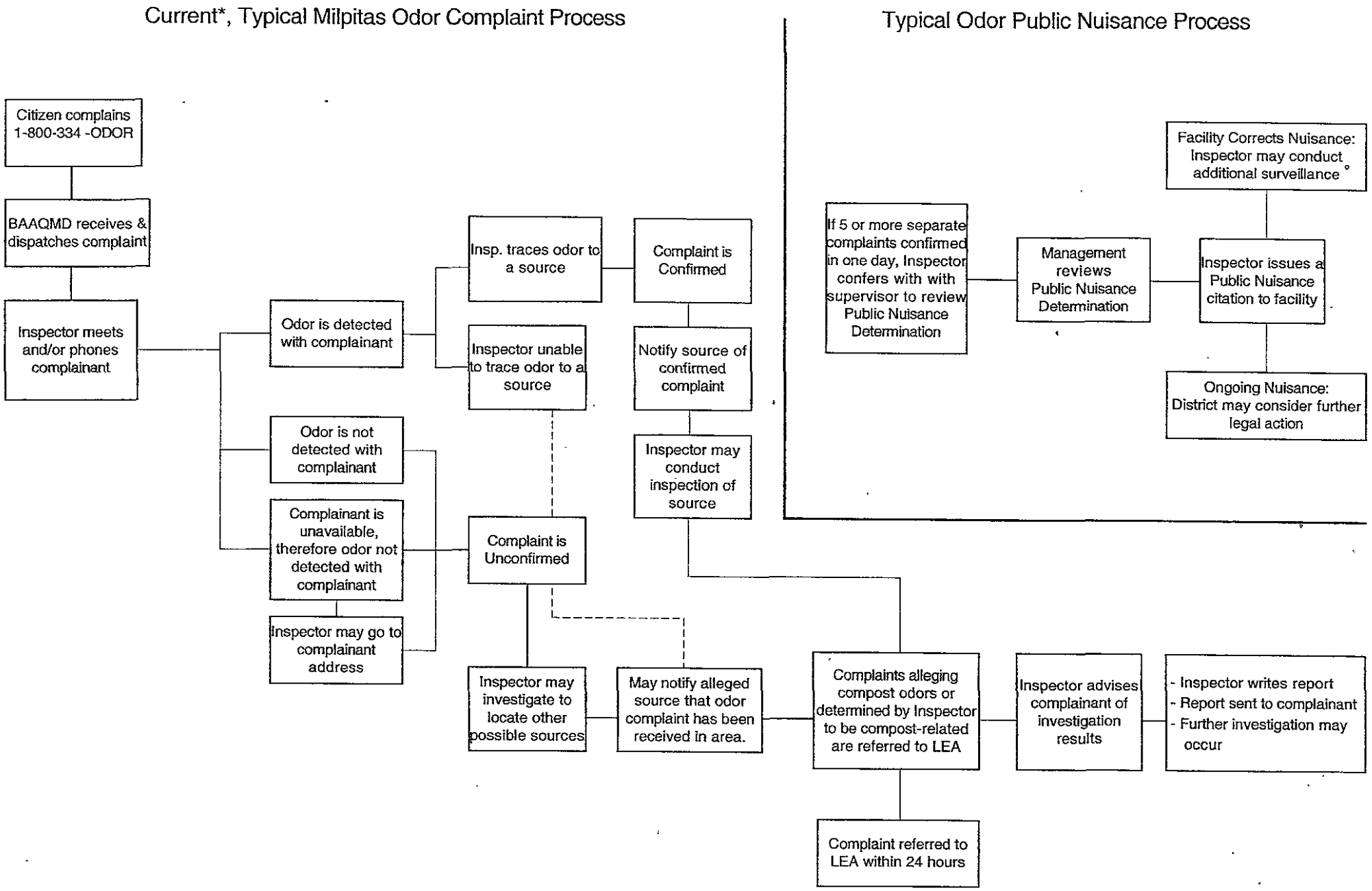
2. BACKGROUND A brief summary on the odor control regulatory process, and background information on potential odor sources is presented.

EXISTING ODOR CONTROL PROCESS. The BAAQMD is the lead agency for the investigation and control of odors. Upon receipt of a complaint, the complaint is assigned a control number and an investigator is dispatched to interview the complainant and locate the odor source. Enforcement is applied when five or more odor events are verified by the investigator within a 24-hour period, and if the odor source site is properly traced and identified. It is crucial that the investigator be at the site at the time of the odor event to confirm the odor with the complainant, so the appropriate odor source can then be tracked. A flow schematic of the BAAWMD odor complaint process is shown in Figure 1.

The responsibility for the application of odor control regulations at compost sites is shared between the BAAQMD and the Local Enforcement Agency (LEA). The 1989 California Integrated Waste Management Act charged the LEAs with monitoring, and enforcing odor emission from these facilities. The local LEA is the City of San Jose Code Enforcement Division. In November 2003, about 50% of all calls were referred to the LEA. Short descriptions of the BAAQMD and LEA roles are shown in Appendix A. Because of the duality of roles, it has been noted that public complaints include confusion over who is responsible for receiving complaints and investigating alleged compost odors.

It is observed that regulatory odor control efforts historically are based on responding to complaints, with a focus on investigative activities for penalty application (enforcement orientated). Odor control purview is not triggered unless five odor complaints are received in one day. Thus emphasis has not been on the prevention of odor events until penalties are imposed, and the process to reach a penalty phase can be somewhat onerous and time consuming as shown in Figure 1.

Figure 1: BAAQMD ODOR COMPLAIN PROCESS
(Developed in coordination with BAAQMD)



* New Complaint Policy Coming December 2003

ODOR SOURCES. Figure 2 shows the locations of potential odor sources. Appendix A describes these sites. As seen, most of the potential sources are located outside the City of Milpitas. One potential source, the Milpitas sewage collection system, is located in the city. All sites were visited as part of a background review. Discussions with representatives from each site were conducted on odor sources and methods to control odors.

The discussions determined that practices to manage odors are in place or can be implemented as needed to help control odors. However, many sources voiced concern that they are not aware when events occur, and therefore they are unable to react on a timely basis to implement corrective action when needed.

Although potential sources have practices to control odor discharges, it has been observed during site visits that odor control practices are not always applied or appropriately implemented. Management oversight at each site is needed to assure proper and consistent best odor management practices. The importance of this oversight must be emphasized to on-site managers by regulatory agencies.

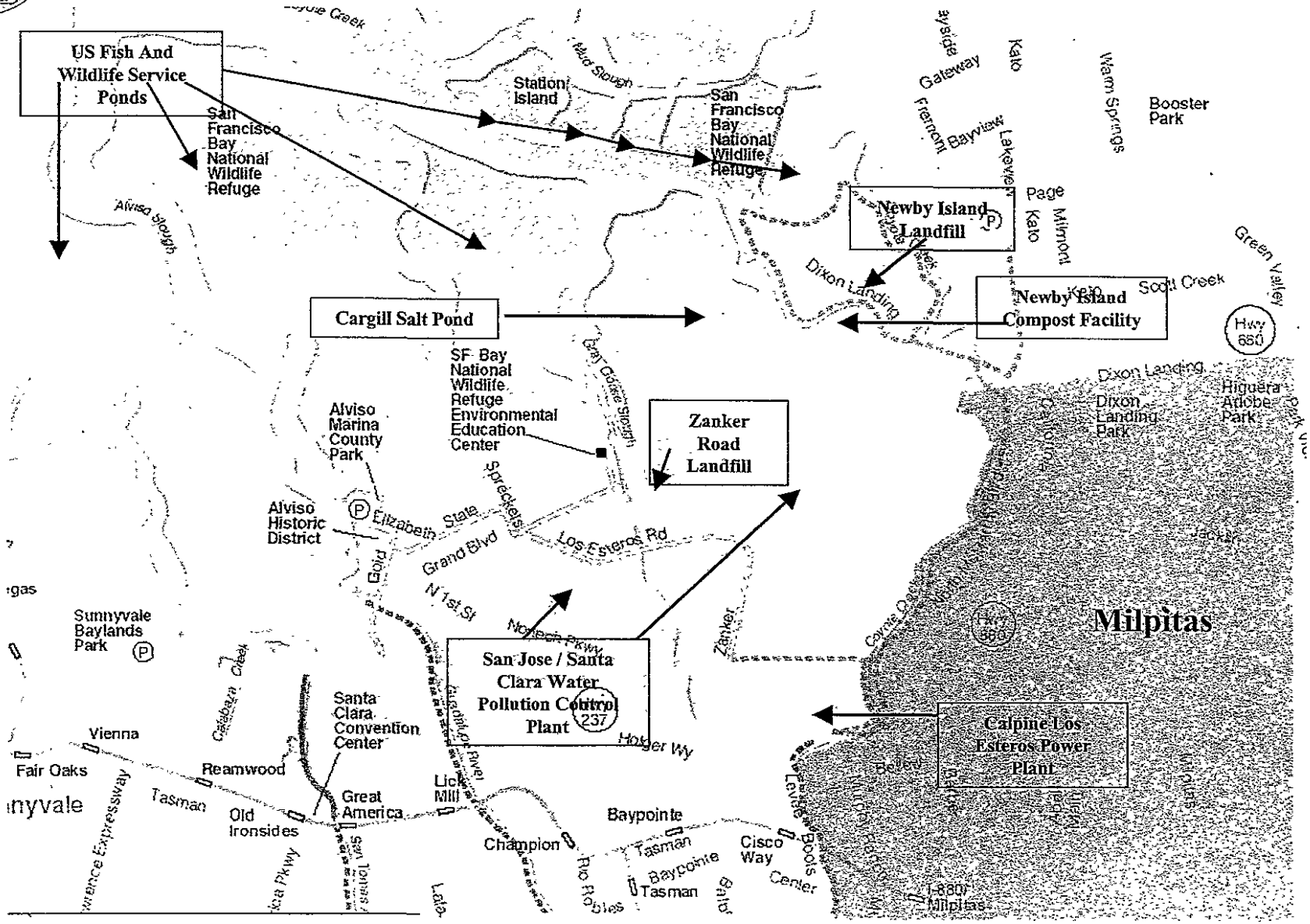
3. DRAFT ODOR ACTION PLAN Specific components of the plan above are discussed in this section. The objective suggested plan guiding principles and proposed plan components are provided.

OBJECTIVES. The objective of the plan is to: (1) in the short term, effectively control odors that affect the Milpitas community. The initial goal is not to form another layer of government but to use the existing regulatory authorities to most effectively control odors. Protocols for coordinated effort among regulatory agencies, and for mechanisms for encouraging effective odor control best management practices at potential odor sources are target products. (2) On the long-term (if necessary), to streamline the regulatory process to effectively encourage odor prevention and thereby eliminating recurring odor events before they start. Long term effort will be implemented should short term fixes to the current regulatory system prove to be ineffective to control odor events.

PRINCIPLES. As the result of a series of coordination meetings among regulatory agencies, discussions with potential sources, site visit observations at each of the potential sources, and public testimony, staff proposes that the following provisions would improve odor control. These elements provide premises for the short-term odor control effort, and if needed, long-term controls.

1. **Centralized Complaints Handling.** A centralized complaint clearing house is necessary to avoid public confusion on who to contact, to minimize confusion over regulatory responsibilities, and to avoid any regulatory duplication. Timely receipt of complaints by one agency is also critical for appropriate odor source investigation and corrective action.

Potential Odor Sources Location Map



Locations as identified in Feb 1996 E&A Environmental Consultants Report "Newby Island Composting Facility Odor Study." Cargill Salt Ponds and los Esteros Power Plant added.

2. Timely Notifications. Establish quick feedback on odor events to potential sources so that source control adjustments may be implemented on a timely basis. This factor has been identified by potential sources as the single most effective way that they can control odors from their sites.

3. Prevention/Oversight Accountability. Establish best management practices at each potential source. Sources must establish management accountability and oversight to assure consistent, responsive and more effective odor control.

PLAN COMPONENTS. To be effective odor control activities must be a sustained, high priority effort maintained as long as potential odor sources exist. Since all of the sources provide essential services to local communities and economies, it is expected potential odor sources will continue to operate for the foreseeable future. It is the objective then that continuous source control practices and vigilant regulatory activities be maintained to eliminate odors.

To implement the principles presented above, a plan consisting of five primary components is proposed: 1) Complaint process streamlining, 2) implementation of a Rapid Notification plan, 3) Application of *Best Management Practices* by potential odor sources, 4) procurement of professional odor control advice input, and 5) legislative activity. Each of these is described below. Some of the components have been partially implemented, and their status is summarized in Appendix C.

1. Complaint Process Streamlining. A centralized point for the public to call when odors are observed is needed. By having one defined contact point, public confusion over who to call would be reduced and more timely investigation by proper authorities would result. An outreach schedule should be developed to assist in advising the public of the importance of making appropriate and on proper contact information. As part of the process, an inspector will call the complainant to obtain details prior to an investigation.

2. Rapid Notification Plan. A rapid notification process would provide timely information from regulatory agencies on odor events to potential sources. The sources can review their on-site processes and make changes to minimize odors on a real-time basis. Potential odor sources have identified timely notification of odor incidents as a crucial step in their ability to determine whether their processes have generated odors and to implement both short and long term corrective actions. This would increase emphasis on effective odor prevention rather than purely on odor control enforcement. Eventually, the anticipated notification should work as follows: Upon receipt of a complaint, BAAQMD dispatchers will send an e-mail to possible odor sources and the enforcement agencies. The e-mail would contain approximate location where the complaint was observed, description of odor, time and date of complaint, alleged source of odor, and complaint tracking number. The potential sources would use the information to review their operation and implement best management practices as described in the next section.

3. Best Management Practices. Each facility is responsible for operating in accordance with permits and regulations. Facilities should be encouraged to employ all feasible best

management practices for odor management. The managers of the facilities should be expected to conduct oversight to insure that these measures are employed and be accountable to regulatory agencies.

4. Odor Advice. City staff augmentation by odor control expertise would provide sound premises for coordination of activities and special evaluations. Staff proposes to advertise for consultant service support for assistance on an as needed basis. Among services to be provided would be assistance in the review of regulatory roles, review of proposed improved best management activities by potential odor sources and support of public outreach activities. Assistance in regulatory streamlining evaluations would also be provided should long-term legislative changes be needed.

5. Legislative Activity. The objective is to produce a matrix of potential regulatory change options to more effectively control odors should action plan odor control efforts be inadequate. The changes would retain regulations found to be effective, but may change ambiguous regulations, streamline and increase regulatory authorities, and direct emphasis on odor prevention to result in more proactive rather than reactive odor control.

It is proposed that activities 1 through 4 be in place and operating in spring 2004 prior to when odor complaints typically increase. Activity 5 may be triggered after spring 2004 depending on the effectiveness of the short-term solution.

---

(1) Newby Island Composting Facility Odor Study dated February 23, 1996 by E&A Environmental Consultants, Inc. page 8.

APPENDIX A
Stakeholder Descriptions

Milpitas Community - The activities of the Milpitas community may be adversely affected during odor incidents. The community has a responsibility to report odor incidents in a timely fashion and meet with the investigator whenever possible.

California Integrated Waste Management Board (CIWMB) - This state agency is charged with developing regulations and enforcing for air quality at compost facilities. For compost facilities located within the San Jose city limits, this authority has been delegated to the City of San Jose. For compost facilities located in the rest of Santa Clara County, this authority has been delegated to the County of Santa Clara. When authority has been delegated to these Local Enforcement Agencies (LEA), CIWMB performs oversight of the performance of the LEA. CIWMB also shares permitting and environmental review at landfill, recycling, and compost facilities.

Bay Area Air Quality Management District (BAAQMD) - BAAQMD is a state agency charged with enforcing air quality regulations, except at compost operations. The agency receives complaints, investigates them, and tracks the odors back to the source.

Browning Ferris Industries (BFI) - Landfill Operations - This landfill, located about one mile west of the City of Milpitas near Dixon Landing Road, was constructed in the 1950's and has an estimated life until 2023. The facility covers approximately 350 acres and handles about 845,000 tons of material each year. Disposal is accomplished by filling cells with trash and covering with an inert material. Methane and other gases may be generated as a result of trash decomposition. Trash collected from Milpitas is disposed at this site.

Browning Ferris Industries (BFI) - Compost Facility - This facility is located about one mile west of the City of Milpitas boundary at Dixon Landing Road. The facility, owned and operated by BFI, produces compost by aerobically decomposing green and other organic material over about a 90-day period. The operation consists of piling appropriately blended material in rows, and controlling conditions such a temperature and moisture to encourage bacterial action to break down solids to a stable material which may be used as a soil amendment. About 91,000 tons per year of material is produced matching the maximum amount permitted. We understand that the facility is also approved to produce food waste compost through a sealed, in-vessel or static pile process.

Calpine - Los Esteros Power Plant - This plant generates electricity through natural gas powered turbines. The plant is located about 1/2 mile to the west of North McCarthy Boulevard. Combustion byproduct emissions may be emitted from the operation of power plants. It is staff's understanding from the California Energy Commission that natural gas powered plants such as this do not generate odor.

Cargill Salt - Cargill produces commercial salt by evaporating San Francisco Bay brine in a series of drying ponds. An odor event occurred from August 2002 when a transfer pump failed resulting in exposure and decomposition of pond bottom organic material. The Bay Area Air Quality Management District issued public nuisance citations for September 2002.

City of Milpitas - Sewage Collection System - The sewage collection system consists of laterals, collection sewers and pump stations in the City of Milpitas. Odors may be formed from the decomposition of organic material. Particular areas where odors may be more likely to occur are where turbulent flow occurs allowing gases to be released or where excessive detention time exists allowing the formation of organic odorous compounds. These locations include: 1) The City of Milpitas Main Sewer Lift Station located at the northwest corner of the city. All raw sewage flows to this station where it is pumped two miles to the regional treatment plant. Improvements were made at this station in the late 1990's, including placing a cover on an underground vault. 2) Venus Way Sewer Pump Station near the corner of Capitol Avenue and Venus Way. This station serves the Pines subdivision. It consists of submersible pumps located in a wet vault.

City of San Jose Local Enforcement Agency (LEA) - The Code Enforcement Section of the Planning Department of the City of San Jose has been delegated as the LEA for compost facilities. The LEA is responsible for permitting, inspecting, and enforcing regulations.

San Jose/Santa Clara Water Pollution Control Plant - This plant treats sewage for an area covering 300 square miles. Service areas includes Milpitas, Santa Clara County Sanitation Districts 2 & 3, San Jose, Cupertino Sanitation District, Sunol Sanitation District, Burbank Sanitation District, Campbell, Saratoga, Monte Soreno and Los Gatos. Separated sewage solids are digested in sealed tanks to a stable material over 30 days before being allowed to air dry for collection and transport off site. Another process includes aerobic digestion for 30 days, followed by a 2-year lagoon detention period and then air-drying in beds. Some material is stockpiled on site. Odors may be generated in the sewage treatment and solids handling processes. Odor controls include the use of chemicals such as chlorine and hydrogen peroxide.

Zanker Road Landfill/Compost Facility. This facility, located about 1.8 miles to the west of Milpitas, was constructed in 1985 and has an estimated life until 2023. The facility covers about 70 acres and handles about 300,000 tons of material each year. Food and other putrescible materials are not accepted. Disposal, like Newby Island, includes daily cover of trash cells. Each day about 100 tons of grass and leaves is composted. The windrows are watered and turned daily, and the compost process is completed in twelve weeks. The same company operates the neighboring facility, Zanker Materials Processing Facility, with similar landfill operations. This second site is 70 acres and also handles about 300,000 tons of material each year. There is no composting processing at the second site.

San Francisco Bay and Creeks (Fish and Game). Natural decomposition of organic material may occur within the San Francisco bay lands west of Milpitas through organic material decomposition and alga blooms. High salt-water content mixed with algae, bacteria, plankton, and mud create a mixture known as brine. During atmospheric conditions involving windy conditions, sediment matter may be churned to the top of the water and odors released. Such events are more likely to occur during the spring and/or fall.

APPENDIX B

Stakeholder Site Visit and Coordination Session Summary
as of January 1, 2004

Date	Activity
10-16-03	Stakeholder Coordination Kickoff Meeting
10-22-03	Regulatory Stakeholder Meeting
10-24-03	Water Pollution Control Plant Site Visit
10-28-03	Stakeholder Coordination Meeting
10-29-03	Review w/BAAQMD of complaint process
10-30-03	Cargill Coordination Meeting
10-30-03	Regulatory Stakeholder Meeting
10-31-03	BFI Compost Site Visit w/BAAQMD and LEA
11-12-03	Zanker Landfill Site Visit
11-14-03	Regulatory Stakeholder Meeting
11-14-03	Cargill Site Visit
11-17-03	CIWMB conference call Meeting
11-18-03	Calpine Los Esteros Power Plant Site Visit
11-18-03	Stakeholder Coordination Meeting
11-25-03	Regulatory Stakeholder Conf. Call
11-25-03	BFI D-Shape Parcel Review Meeting
12-01-03	Milpitas Sewage Pump Stations Site Visit
12-17-03	Regulatory Stakeholder Meeting

APPENDIX C

Action Plan Status as of January 1, 2004

Complaint Process Streamlining. A centralized complaint point to the Bay Area Air Quality Management District established. The contact number is 1-800-334-ODOR or 1-800-334-6367. Outreach to advise the public of the number and what to provide is being implemented as described in Appendix D.

Rapid Notification Plan. The plan is currently in the beta test stage where notifications are sent to the City of Milpitas and the City of San Jose LEA. The potential sources would be added to the distribution list once the beta testing is completed, and upon completion of memorandums of understanding between each potential source and the BAAQMD.

Best Management Practices. City staff and regulatory agencies have completed site visits to each of the possible odor source facilities. Facility staff has shared information on their operation and details on odor control practices. It has been observed in each case that sites do have some form of best management practices (BMPs) to control odors. During the visits, we understand that operating staff has been encouraged by managers to apply BMPs. Among the practices noted are:

- An odor minimization plan, required to be submitted by all compost facilities under Integrated Waste Management Board regulations, is being reviewed for adequacy by the LEA. The plan includes odor-monitoring protocols, summary of meteorological conditions affecting migration of odors, and a complaint response procedure. Newby Island is proceeding with operational best management practice adjustments by relocating compost processing to an alternative site, and use of windsocks as an operational aid. In addition, long-term operational revisions to reduce odor emission potential and resulting impacts to Milpitas are being considered for review with regulatory and Milpitas staffs.

- Cargill Salt has implemented oversight processes to assure that pond bottoms are not exposed due to removal of brine liquid that previously resulted in a odor episode.

Odor Advice. Requests for consultant odor advice and support for City staff was sent to 15 firms on December 19, 2003, with a request to submit proposals on January 15, 2004. The request includes, among others, as-needed services for the odor outreach program, review of best management practices at potential odor sources, advice on legislative changes, and support at coordination and public sessions.

Legislative Activity. The City Attorney has completed initial review of odor control legislation. The evaluation documents the history and, in as far as possible, the odor control regulation intent. This information, along with the October 30, 2003 legislative summary provided by Kelley Wee, Director of Compliance and Enforcement, BAAWMD, in response to Vice Mayor Dixon request, is now being used by the City Attorney to begin the process of identifying possible regulatory improvements. Mechanisms for odor control

legislative changes will also be identified. One observation is that State legislation currently identifies BAAQMD as the responsible agency for odor enforcement with the exception of compost odor regulation, which is delegated to the CIWMB and subsequently to the LEA. This process, as stated above, can result in confusion among the general public and some agency staff over responsibilities.

APPENDIX D
Outreach Program Memorandum

MEMORANDUM
Engineering Division

To: Darryl Wong, Utility Engineer

From: Leslie Stobbe, Public Information Specialist

Subject: UPDATED: Odor Publicity & Outreach Action Plan

Date: December 30, 2003

Introduction. This memorandum addresses the City Council's direction that staff develop and implement an odor information outreach action plan to encourage the public to properly report odor incidents. Per review and comment from the City Council, the items in bold are added to the outreach plan.

Objective. To inform the public on how to make appropriate, timely and adequate odor complaints when foul odors are observed.

Schedule & Cost. Total estimated cost for added outreach increased to $12,500 (from $7,500). A schedule of current and new activities follows:

November
Created flyer (attached) and placed on the City's web site.
Flyer placed on City Media – Public Service Announcements (1510AM, KMLP15 – TV)

December
Flyer inserted into 12/18/03 edition of the *Milpitas Post*
Flyers placed at public counters

January
Flyer inserted into *Panorama,* Chamber of Commerce Newsletter

February
Targeted doorhanger to northwest quadrant of Milpitas, including Sunnyhills Neighborhood

March – April
Flyer to appear on back outside cover, spring edition of the *Milpitas Connection*
Article in *Milpitas Recycling Scene* mailer
Arbor Day/Compost Giveaway Advertising

May
Flyer distributed through MUSD. Requires Superintendent review & approval.

June
Residential doorhanger distributed citywide to match flyer design.